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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/685,076 | 10/13/2003 | KianKeong Ooi | STL11367 | 4341 |

7590 06/29/2005

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EXAMINER

MERCEDES, DISMERY E

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2651

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------------------|----------------------------|--|
| Office Action Summary | Application No. 10/685,076 | Applicant(s) OOI ET AL. | |
| | Examiner Dismery E. Mercedes | Art Unit 2651 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-24 is/are pending in the application.
4a) Of the above claim(s) 14 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-5, 10, 12-13, 15, 18, 21, 22 is/are rejected.
7) ☒ Claim(s) 6-9, 11, 16, 17, 19, 20, 23 and 24 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 10/13/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/13/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species I (the method of Fig.1 with the disk drive of Figs. 2-4) in the reply filed on February 24, 2005 is acknowledged.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The recitation "deriving a sector number from the bit-groups and not from the digital remainder portions" is not clear and do not accord with what was disclosed in the specification (see page 9, lines 21-29 and page 10, lines 23-28 of instant specification).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claim 1,3-5,10,13,15,18,21,22 rejected under 35 U.S.C. 102(b) as being anticipated by Greenberg et al. (US 6,104,558).

As to Claim 1, Greenberg et al. discloses a method comprising a step (a) of determining a location within a cycle by reading a portion of a cyclic bit sequence (as depicted in Figs. 2 & 4, "210"), the bit sequence containing several interspersed bit-group sets (as depicted in Fig.4, "402") that each contain a plurality of series that each consist of several consecutively-placed identical bit-groups (as depicted in Fig.5).

As to Claim 3, Greenberg et al. further discloses of accessing a sector having a sector number, the sector number being the determined location within the cycle (as depicted in Fig.4).

As to Claim 4, Greenberg et al. further discloses of writing each of the bit-groups as a mutually adjacent plurality of bits within a respective servo field (as depicted in Fig.5).

As to Claim 5, Greenberg et al. further discloses selecting each of the sets so that each of the bit-groups in the set uniquely identifies the set (col.5, lines 59-61).

As to Claim, 10, Greenberg et al. further discloses writing each of the bit-groups within a few nominal bit-lengths of a respective track identifier (as depicted in Fig.5).

As to Claim 13, Greenberg et al. further discloses detecting a plurality of inter-set transitions in the read portion of the bit sequence (as depicted in Fig.4, "servo burst").

As to Claim 15,18,21,22 are apparatus claims drawn to claims 1, 3 & 5 and are therefore rejected for similar reasons as set forth in the rejection of claims 1, 3 & 5, supra.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greenberg et al., in view of Ramler et al. (US 2003/0161067 A1).

Greenberg et al. discloses the method of claim 1, but fails to particularly disclose mounting two data surfaces so as to generate a significant angular misalignment therebetween. However, Ramler et al. discloses such (as depicted in Fig.7, page 3, [0029, 0036-0037]). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention to modify the method of Greenberg et al. by generating angular misalignment as disclosed by Ramler et al., the motivation being because it would provide such method with the enhanced capability of determining a disc drive head position over a data surface during a head switch operation utilizing angular displacement (page 1, [0008]).

Allowable Subject Matter

8. Claims 6-9,11,16-17,19-20,23-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Lee (US 6,433,948 B1); Kawai (US 5,748,401); Kim (US 6,687,078 B1); Wilson et al. (US 2004/0100719 A1); Ogasawara et al. (US 5,905,603); Settje et al. (2005/0041321 A1).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dismery E. Mercedes whose telephone number is 571-272-7558. The examiner can normally be reached on Monday - Friday, from 9:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dismery E Mercedes
Examiner
Art Unit 2651

DM



DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600